

REMARKS

Claims 1, 2, 5, 6, 10, and 19-42 are pending, while Claims 3, 4, 7-9, 11-18, and 43-50 have been canceled without prejudice, and new Claims 51-54 are added in the present application.

In the Office Action, Claims 1, 2, 5, 6, 10, 17-32, and 36-50 were rejected under 35 U.S.C. § 103(a) over Humpleman (USPN 5,940,387) in view of Budow et al. (USPN 5,625,864) in further view of Ito et al. (USPN 6,014,693).

Claims 33-35 were rejected under 35 U.S.C. § 103(a) over Humpleman in view of Budow et al. in further view of Ito et al. and further in view of Blahut et al. (USPN 5,442,389).

Applicants respectfully traverse these rejections and submit the following.

In the present invention, distribution in a local area network of the stream data received from an external network is adjusted according to the bandwidth of the local area network, which is narrower than that of the external network. Specifically, the stream data received in a broadband (with a larger amount of data being transmitted per time, e.g., broadcast) is controllably changed to stream data corresponding to a narrower band (with a smaller amount of data being transmitted per time) based on the distribution condition of the local area network. Claim 1 of the present application, as amended, explicitly recites a filter executing a predetermined processing "to control an amount of transmission data per unit of time for outputting the stream data to the terminal device," in addition to a file I/O controller outputting the predetermined unit of information selected by the selector "to the file device." For example, in the present invention, based on the distribution condition in a local area network, reduced data are transmitted to the terminal device, when traffic is large, while unreduced data are transmitted to the file device.

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This aspect of the present invention is not disclosed or suggested in any one of the cited references. For example, Budow is titled "Interactive Digital Video Services System with Store and Forward Capabilities," and its subject matter is different from that of the present invention, and accordingly the configuration of Budow is different from that of the present invention. Budow describes, at its Col. 4, lines 31-43, the use of a "video server" to store some programming, and further, the use of additional video storage devices as a backup system "in case the video server fails." Budow further describes, at its Col. 5, lines 36-46, that the advantage of its system lies in significant reduction of "time delays" previously encountered in low speed upstream transmissions. Thus, it is apparent that the subject matter of Budow differs from that of the present invention. Ito, at its Col. 2, line 60 to Col. 3, line 20, describes setting the transfer bit rate and transferring video data "at the set transfer bit rate" from a video server through a network to a client. In contrast, in the present invention, based on the distribution condition in a local network, information is transmitted to the "terminal device" and the "file device."

Accordingly, it is respectfully submitted that Claim 1, as amended, is allowable over the cited references.

Claims 6 and 25, as amended, include substantially the same limitations as amended Claim 1. Specifically, Claim 6 recites "filter means for controlling an amount of transmission data per unit of time to be output to the terminal device" and "file I/O means for controlling a file device under management of the stream distribution server and for outputting information selected by the selection means to the file device." Likewise, Claim 25, as amended, recites "a filter executing the predetermined processing to control an amount of transmission data per unit of time for outputting the sub-stream data to at least one of the file device and a terminal device" and "a file I/O controller controlling a file device and outputs the predetermined unit of

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information corresponding to the sub-stream data selected by the selector to the file device." Therefore, Claims 6 and 25, as amended, are also believed to be allowable for at least the same reasons why amended Claim 1 is allowable.

Claims 2, 5, 10, 19-24, and 26-42 are all dependent claims of Claims 1, 6, and 25, as amended. Therefore, these dependent claims are also believed to be allowable for at least the same reasons why Claims 1, 6, and 25, as amended, are allowable.

New Claims 51-54 are also believed to be allowable over the cited references. Budow and Humpleman switch distribution stream by stream. In contrast, the present invention as recited in Claims 51-54 distributes data to, for example, an in-home network by unit of "packet" which configures stream. Claims 51-54 all explicitly recite "a selector selecting a packet from the stream data received by the receptor," and "a transmitter transmitting the packet." In Ito, the bit rate is dynamically changed, but is fixed at certain predefined levels, for example, 1.5Mbps/1.0Mbps/768Kbps/.../128Kbps, as shown in Figure 3. In contrast, in accordance with the present invention, a transfer rate adjustment (i.e., filtering processing) function, or so-called Stream Shaping method, is provided so that the amount of transmission data is arbitrarily adjusted, while maintaining the quality of the stream as much as possible, based on the "packet" priority for the stream. In other words, in the present invention, any arbitrary bit rate can be specified according to the Stream Shaping method.

Based on the foregoing, it is respectfully submitted that Claims 1, 2, 5, 6, 10, 19-42, and 51-54 of the present application are allowable. An early and favorable action allowing these claims to pass the present application for issuance is respectfully requested. If the Examiner

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should have any further issues to resolve, he is invited to telephone applicants' undersigned attorney at the number set forth below.

Respectfully submitted,

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